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ABSTRACT

A number of educational finance proposals suggest that the State become the primary collector and dispenser of revenue to support public education. Under such proposals the State would become, in effect, the employer for collective bargaining purposes. Accordingly, this paper deals with representation issues, the scope of bargaining, and problems of resolving bargaining impasses. It also discusses the implications of State funding and Statewide collective bargaining. The main argument advanced in support of State assumption of all or nearly all costs supporting public education is that only through such a device can equality of educational opportunity be achieved. With the present inequality of wealth among school districts, one premise follows--that there is a close correlation between district wealth and educational opportunity. It follows because teachers are the chief ingredient of any educational enterprise, and some mechanism must be found to distribute teaching talent more equally; poor teachers should not be concentrated in the poor districts, while good teachers are concentrated in the rich ones. A Statewide collective bargaining arrangement providing for uniform conditions of employment would, according to this argument, take the comparative advantage away from the affluent districts and thereby promote greater equality. The concluding sections of this paper present comments critical of that proposed remedy. (Information on pages 48-67 not complete on this copy. (Author)

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STATE ASSUMPTION OF SCHOOL COSTS AND COLLECTIVE BARGAINING STRUCTURE

EA 005 667

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INTRODUCTION

A number of proposals have been put forward in recent years to remedy the problem of inequality of per-pupil expenditures and tax burdens between the state: full-state funding; near full-state funding with local options to increase expenditures; district power equalizing. Though each of these proposals has unique characteristics, it is assumed in this paper that, as far as collective bargaining structure is concerned, the similarities far outweigh the differences. All schemes have therefore been lumped together under the general rubric "state funding." It is taken for granted that the state would become the primary collector of revenue to support public education, and for all practical purposes the sole dispenser of school funds. It would, in short, become the employer for collective bargaining purposes. Guided by this concept, the paper deals with representation issues, i.e., the composition of the bargaining unit and modes of representation; the scope of bargaining; problems of resolving bargaining impasses. The concluding sections discuss, perhaps too subjectively, the implications of state funding and state-wide collective bargaining.

The main argument advanced in support of state assumption of all or nearly all costs supporting public education is that only through such a device can we achieve equality of educational opportunity. There is tremendous inequality of wealth between school districts, and the premise is that there is a close correlation between district wealth and educational opportunity. If follows from this premise that because

teachers are the chief ingredient of any educational enterprise, some mechanism must be found to distribute teaching talent more equally; poor teachers ought not be concentrated in the poor districts while good teachers are concentrated in the rich districts. A state-wide collective bargaining arrangement providing for uniform conditions of employment would, according to this argument, take the comparative advantage away from the affluent districts and thereby promote greater equality. The concluding sections of this paper are critical of that proposed remedy.

STATE FUNDING AND COLLECTIVE BARGAINING STRUCTURE:

SOME PRACTICAL CONSIDERATIONS

If in its effort to achieve equality of educational opportunity the state were to assume the full burden of financing the public schools, how might it distribute funds to the individual school districts in a manner that would best promote this objective? A corollary question is--what impact will whatever method of distribution eventually decided upon have on the nature of teacher organizations and the collective bargaining process?

For the first question, there seem to be two options available. One is that the state could provide equal expenditures on a per-pupil basis, with some variations based on such local characteristics as the current average level of student reading scores, family income, population density, etc. This would appear to be the relief sought in most of the Fourteenth Amendment cases litigated so far. The second option is to provide for state-wide uniformity in such matters as salary schedules for teachers, benefits, staff-student ratios, expenditures for equipment, etc., through a state-wide collective bargaining agreement. As in the previous option, allowances would probably be made for districts which have high percentage of low achieving students, a substantial number of welfare recipients, or an unusually sparse or dense population.

EQUALITY OF EXPENDITURES

But first some comments on the proposal to provide equality of expenditure on a per-pupil basis. The merit of this proposal is that it would allow a considerable amount of administrative flexibility at the local level. School management would have some latitude in allocating resources within the operating budget prescribed by the state. It could, for example, reduce the percentage of the budget occupied by the wage bill (salaries and fringes) and spend the freed money on books, materials, or educational hardware if, in the judgment of local officials, this would best promote student achievement. Alternatively, school officials could decide to increase the percentage of the budget allocated to teacher compensation if it was determined that the educational program would be better served by increasing salaries or hiring more teachers than by buying more books and equipment.

It would also be possible under this arrangement for school officials to exercise a certain amount of flexibility in allocating salaries, even if the overall salary allocation were fixed at a specific amount. A school district could, in other words, devise a salary schedule that would best suit the teacher recruitment needs of that particular locality. The manpower problems of two adjacent districts in the same county in a northeastern state suggest the desirability of allowing for a high degree of flexibility. In one district approximately 60 percent of the teaching staff had less than three years experience; the neighboring district had only 17 percent of its staff so situated. One district was evidently plagued by the problem

of very high turnover at the nontenured level, the other was not. One important source of the difficulty in the first school system could be that salaries at the upper levels were not sufficient to recruit and retain enough teachers willing to make a career in that locality. Because school management under an equal allocation plan would be required only to stay within the total wage bill, it could choose to provide higher salaries in the problem area at the expense of some fringe benefits, or adjust the pay scales at those levels where the retention problem is less intense.

Another advantage of the equal expenditure scheme is that in those districts where formal collective bargaining has already been established the parties can, within limits, still be allowed to work out an agreement that is mutually satisfactory. If salaries and other working conditions were established on a state-wide basis, local interests (and probably needs as well) could suffer at the expense of the interests and needs of state negotiators and the state-wide bargaining agent. The beneficial effects of locally arrived at settlements on teacher morale and performance has so far not been tested. But one can hazard an observation that, all other things being equal, teachers would prefer working under a contract they had a significant voice in making to an agreement that, in its attempt to be all things to all districts and to all teachers, could not help but ignore some rather pressing needs at the local district level.

The difficulty with the equal expenditure scheme, to turn the flexibility argument on its head, is that it would probably fall short of

achieving the objective of state-wide equality of teacher benefits. It is to be remembered that the faith of those advocating state assumption rests on the idea that equality of expenditure will lead to equality of opportunity, which, in turn is largely dependent upon the premise that teachers of approximately equal talent should receive an approximately equal salary. Under this arrangement the portion of the budget allotted to the wage bill would still be subject to the collective bargaining strength of the local employee organization. A strong union, willing to strike or otherwise able to impose sanctions on the local district, would probably garner a higher salary settlement for its members than would a weak union in another district. It is not uncommon today for districts with similar per-pupil expenditures to have salary schedules that are several hundred dollars apart at all points along the schedule.

Nor would the whipsaw, which is one of employee organizations' most powerful weapons in the collective bargaining arsenal, be eliminated. Indeed, it is possible that the problem would become exacerbated. One might also speculate that the equal expenditure proposal would also make worse the residue of bad feelings between school boards and administrators that so frequently follows difficult negotiations. At present, school boards can point to an impoverished tax base or to niggardly taxpayers as justification for a settlement which in the teachers' view was all too modest. Under an equal expenditure plan the responsibility would rest solely on the board. The effects of collective bargaining on the working relationships between teachers, administrators, and board members is impossible to calculate. It is

the impression of many neutrals who deal with collective bargaining in school disputes, however, that attitudes have, over time, become less cordial and the social distance between teachers and administrators has become greater. How this development, if indeed it has happened to any significant degree, affects children and the learning process is difficult to say. It is possible to say, however, that the prefatory language of most collective bargaining statutes predicting that the law will promote harmonious relationships between public employees and employers has turned out to be one of the least reliable predictions of our times.

STATE-WIDE BARGAINING

If it were decided to make the state the single employer for collective bargaining purposes, how might that decision be implemented? What would be the structure of the bargaining unit? How would employees be represented? What would be deemed appropriate subject matter for negotiations? How would bargaining impasses be resolved?

Representation Issues

The threshold question in all collective bargaining arrangements have to do with representation: what categories of employees shall constitute the bargaining unit, what mode of representation shall be followed, and how shall the bargaining agent be selected?

As for the bargaining unit (all employees whose condition of employment are covered by a single collective bargaining contract), one would assume that all public school teachers in the state would be in

the same unit, at least for purposes of negotiating a state-wide master agreement. When the scope or subject matter of negotiations is discussed later, more will be said about the possibility of separate district-wide units; it is sufficient to point out here that for negotiations of basic salaries, economic fringe benefits, some form of union security, and possibly a grievance procedure, all teachers would be covered by a single agreement. It is also likely that in those states where supervisors and/or administrators enjoy collective bargaining rights they, too, would constitute a single unit. While it is possible that building principals, say, would be absorbed into the teacher unit, this does not seem likely, given the present inclination to separate supervisors from those they supervise, if not to deny such employees the right of collective bargaining entirely.[1]

One of the most interesting questions presented by state-wide bargaining is whether nonprofessional employees such as bus drivers, cafeteria workers, custodians, etc., would also constitute a single unit. On the face of it there seems no good educational or constitutional reason for doing so. But unless the state were to provide a lump sum to each district in order to secure such services, or local districts were allowed to levy local taxes to provide for nonprofessional help, there would seem to be no alternative but a state-wide unit of nonprofessional employees. Conceivably there would be several, since

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[1] See Appendix B.

it is not uncommon even today for nonprofessionals to be organized into rather narrow occupational units.

There is no longer much debate concerning the mode of representation. Though two states, California and Minnesota, have experimented with proportional representation, and a few districts have tried "members only representation," it is now generally agreed by union leaders, public employers, and labor relations specialists alike, that exclusivity is the only viable system. Under the exclusivity principle a single employee organization serves as the sole spokesman (bargaining agent) for all employees in the bargaining unit, both members and nonmembers.

As for the selection of the bargaining agent, the most common method is by a secret ballot election. This was the procedure followed in Hawaii, the only state with a state-wide bargaining agreement, in 1971 when teachers in a state-wide representation election had the option of choosing between the Hawaii State Teachers Association, the Hawaii Federation of Teachers, and "No Representation." The HSTA won in a close run-off election and is presently the exclusive bargaining agent for all public school teachers in Hawaii. If the movement toward merger goes forward in other states as it has in New York, there would, of course, be no need for a representation election. There would be a preponderance of evidence supporting the contention of the state organization that it represented the interests of all teachers in the state for collective bargaining as well as other purposes.

Employer Representation

While the composition of the employee organization bargaining team is of no official concern to the general public, the composition of the "state" team may be a matter of rather special interest. Typically, in those states which have state-wide agreements with state employees, mental hospital workers, prison guards, state police, etc., negotiations are conducted by representatives of the governor's office. The legislature's role is merely that of ratifying (or, infrequently, rejecting) the contract once arrived at, and raising the necessary funds to implement it. It is not uncommon, however, for special legislative committees to serve as a liasion with the governor's bargaining team.

In Hawaii, where the management team is in part established by statute, the Governor has appointed, to supplement his own chief negotiator, two Board of Education members, a representative of the Office of Budget and Finance, and a spokesman from the Department of State Personnel.[2] Interestingly, there was no representation from the State Department of Education where most expert knowledge on school finance and educational manpower policy, one might assume, is located.

Since Hawaii had a single state-wide system before the advent of bargaining there were no local school boards to seek representation on the state team. One would expect that in the remaining states, however,

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[2] Joan Lee Husted, "Winning a Statewide Contract," Compact, vol. 6, No. 3 June 1973, p. 35.

there would be a considerable clamor for representation. For although finance and salary structures would cease to be matters of local concern, there could very well be considerable interest in how the deal struck at the state level would effect the educational enterprise in the home districts. There is precedent for such local representation. Members of Local Education Authorities sit on the Burnham Committee which negotiates teachers' salaries in all state schools in England and Wales, and members of local "decentralized" boards are represented on the management team in New York City during negotiations of that city's master agreement.

Surely the structure of the management team under a state-wide bargaining arrangement would take different forms in different states. But one would expect that under any conceivable arrangement the main spokesman would be directly responsible to the chief executive, assisted by fiscal and personnel experts. Whether legislators, experts on educational achievement, and local board members would also become involved is anyone's guess. Nor is it possible to estimate the degree to which such involvement would contribute to more harmonious or stable labor relations.

Scope of Negotiations

Once the representation questions have been resolved, the bargaining unit determined, and the bargaining agent selected, the next issue to be settled is what items the parties are obliged to or ought to bargain over. The National Labor Relations Act and most state statutes covering the employment arrangement in the public sector oblige the parties

to negotiate over "terms and conditions of employment." Meaning and substance have been given to that ambiguous expression over time by rulings and interpretations applied by administrative agencies and the courts. Both agencies and courts are triggered into action when one of the parties to a negotiation (usually the employee organization) brings a refusal to bargain charge against the other for adjudication. Thus in New York State an employee organization brought an improper practice charge against a local school board when the board refused to negotiate over a union demand dealing with specific limits on class size. In this instance the administrative agency and an appellate court ruled that class size was not a mandatory subject of bargaining, although the impact of an administrative decision was mandatory.

The usual distinctions made on bargaining subject matter are: mandatory, those issues specified in statute and in agency and/or court opinions which the parties may bargain to impasse if one side makes a proposal on the issue; permissive, those subjects which the parties may bargain over but which neither side is obliged to; prohibited, those subjects which have been precluded by statute and/or the courts.

The question of negotiability becomes somewhat complicated in public education since in addition to provisions of local collective agreements and local school board regulations not a part of the agreement, there are a number of employment conditions determined by statute. In most states, even those with collective bargaining statutes, pension benefits, rights of probationary teachers, tenure protection, minimum sick leave benefits, and occasionally the length of duty-free lunch

periods are legislated rather than bargained. Certainly one of the most interesting questions posed by state-wide bargaining is whether statutorily imposed working conditions will become subject to bargaining or, conversely, whether certain employment conditions presently contained in local agreements will become grist for the legislators' mill.

When the issues under discussion are clearly working conditions--wages, hours, sick leave, fringe benefits--there is usually little dispute over whether they are appropriate subjects of collective bargaining. It is only when demands are made that impinge upon educational policy--student-teacher ratio, curriculum, teacher selection and promotion criteria--that questions are raised about the bargaining table being the most appropriate forum for deciding such issues. In its broadest and plainest form, the question is whether policy shall be made as a consequence of economic struggle or through traditional political and legislative channels.

Of course, it is not quite as simple as that. There is, for example, nothing to prevent a teacher organization frustrated at the bargaining table from attempting to win concessions from a legislature it could not win from the governor's bargaining representative. Indeed, one of the consequences of state-wide bargaining may be to politicize teachers to a degree we have not yet experienced.

In the absence of pressure from teachers to do otherwise, legislators would probably prefer to limit the terms of a negotiated agreement to a few economic items. This could be done either by limiting the

scope of bargaining through statutory amendment, or by the legislature letting the state's negotiating committee know that it would not ratify a contract that contained agreements on policy issues.

It is not likely, however, that either course of action would set well with teacher groups. Characteristically, the subject matter of teacher negotiations transcends the subject matter of other negotiations, certainly more so than in the private sector and in most instances the public sector as well. Teacher groups tend to view collective bargaining as not only a mechanism for influencing manpower policy, but as a means of influencing the general direction of public education. Teachers possess the expert knowledge, not boards of education or legislators, so the argument runs, and it is through the collective agreement that this expertise ought to become manifest. So far, teacher groups have usually not been content to leave complicated policy matters to resolution through discussion or other less formal procedures, preferring instead to gain half a loaf in an iron-clad agreement over a possibly more substantial influence through traditional academic routes. The fear is, evidently, that influence through consultation is still subject to unilateral action of the employer, whereas policy contained in a collective bargaining contract can only be modified when both parties agree to such a change.

It is conceivable that state assumption will result in two-tier bargaining. It is common in the private sector (the automobile industry, for example) for a master agreement to be struck at the corporate or industry level on such issues as wages and fringe benefits and leave it

to the parties at the local level to work out agreements on matters such as parking, locker space, clean-up time, etc. Possibly a similar arrangement could be worked out under state-wide teacher bargaining; certain housekeeping items could be negotiated at the local level, along with various policy matters, if both employer and employee representatives chose to do so. The merit of two-tier bargaining is that it allows for a relatively uncluttered master agreement (and consequently the possibility of less heated negotiations) and at the same time provides an opportunity for the parties at the local level do deal with issues that are unique to the individual districts.

The difficulty with the two-tier structure is that the separation of bargaining subject matter into two separate bargaining relationships may make an agreement more difficult to achieve. Successful bargaining is based on the art of judicious compromise. It is also based on the willingness to trade off one bargaining proposal for the sake of gaining a concession on the other. In many instances such trade-offs are made between purely economic items: a salary proposal is modified in order to secure better hospitalization coverage. But it frequently happens that trade-offs are made between economic and noneconomic issues: a sabbatic leave provision for a more rigorous teacher evaluation scheme. Thus some of the means of securing concessions and the source of many of the compromises that make agreement possible would be denied the parties at both the state and local level.

Be that as it may, it is not likely that we shall see state-wide agreements that are as comprehensive as the contracts presently negotiated

in the larger school districts. Nor is it probable that teachers at the local level could be persuaded to give up the noneconomic gains already achieved through local negotiations. Neither would they be eager to surrender the right to bargain for even greater concessions in this area; policy matters, included.

Thus with all the difficulties involved, probably the most appropriate bargaining structure would be a state-wide agreement on salaries and other basic economic issues, leaving it to the local inhabitants to fight over the remains. It is not a particularly tidy structure, but the alternative of having all issues decided at the state level could not only lead to extremely difficult bargaining but to a stultifying uniformity of practices and procedures.

Impasse Breaking Procedures

In the private sector the generally accepted means of breaking a bargaining impasse is the strike or threat thereof. The knowledge that a strike is always a real possibility serves as the lubricant for settlement, both parties being forced to calculate the cost of a strike (loss of earnings and possible loss of jobs for the union, loss of profits and possible permanent loss of markets for the employer) against the cost of settlement (fewer benefits than the union wanted, greater manpower costs than the employer hoped to concede). It is also assumed that in the private sector the product market serves as a deterrent to strikes. Unions are not interested in driving the employers of workers it represents into bankruptcy by forcing the employers' customers to choose alternative products or to

go to other producers, possibly never to return. Thus while the American economy has never been free from intransigent employers or strike-happy and irresponsible unions, the restraints of the market place have caused most unions and employers to act toward each other with reasonable restraint and responsibility.

There is nothing comparable to the product market in the public sector, particularly in public education. It is possible, of course, for a handful of parents to send their children to private schools if the local schools are shut down or, as a consequence of a bad settlement, are shabbily run. But this is not an option for most citizens; they are the captives of a monopolistic public market.

It is partly for this reason that strikes have been declared illegal in most states. Pennsylvania, Hawaii, and Alaska have granted a limited right to strike (all impasse procedures--mediation and factfinding--must first have been exhausted and the strike may not pose any danger to health or safety), but in the remaining states there does not appear to be much sentiment favoring the granting of the strike right to public employees.

To be sure, the strike prohibition has not prevented all strikes. Between 1960 and 1971 there have been 631 strikes in public education alone, involving 600,375 teachers and causing almost 6,000,000 man days to be lost.[3] These statistics have led some commentators to believe that strike prohibitions, even when accompanied by stiff penalties, are

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[3]Government Employee Relations Report, Reference File No. 37, p. 43.

completely ineffective. That may be the case, but neither have laws prohibiting bankrobbing been completely effective. The test of a law, moreover, is usually not how many citizens obey it but whether the law actually promotes the social good in the long pull.

How might state funding of education and state-wide bargaining effect legislative thinking on the right to strike? It may be instructive to recall that Hawaii, with a state-wide educational system, granted the limited right to strike in its legislation providing for public employee bargaining. It may also be instructive that a strike called by the Hawaii State Teachers Association in April of 1973 was 90 percent effective.[4] But on the other hand the Hawaiian situation could be an anomaly. Would the Pennsylvania Legislature, for example, have granted the strike right to teachers if teachers were competing with all other state employees for the allocation of limited state funds? One doesn't know. But it is one thing for a legislature to grant the right to strike to employees over whom it has limited jurisdiction and quite another to grant this right to employees with whom it must deal directly and ultimately reach agreement.

It is virtually impossible to predict how effective a state-wide strike would be, whether legal or illegal. Would a majority of teachers leave their classrooms and join the picket line, or would a majority reject the strike call? Would the strike be used sparingly or frequently? Would public sentiment be with the teachers or with state officials?

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[4]Government Employee Relations Report, No. 501, April 30, 1973, p. B-14.

Could the governor remain insulated from public pressure if the public mood was to get the children quickly back into the schools and worry about increased costs and a possible maldistribution of resources at a later date? There is very little in our experience thus far to allow even tentative answers.

Absent the strike, what other mechanisms are available for the resolution of negotiation impasses? Most states with public employee collective bargaining statutes provide for mediation and factfinding. Under mediation the parties are encouraged (and sometimes cajoled) to make their own settlement. If mediation fails, factfinding is employed. There is disagreement between state agencies as to the proper role of the factfinder, some viewing that process as quasi-judicial while others see it as a mere extension of collective bargaining. In either case, the function of the factfinder is to conduct a hearing, listen to the facts and arguments pertaining to the dispute and issue nonbinding recommendations on how the disputed items ought, in his judgment, be resolved. While the legislative body is free to reject the factfinder's recommendations, there is at least the hope under this process that it would be persuaded by the facts and the rationale contained in the report. There is also the view that public pressure would persuade both parties to accept the recommendations, although there has to date been scarce evidence that public groups have taken that much interest either in the procedure or the outcome.

In some states, Michigan, Pennsylvania, and Washington, for example, the legislatures have mandated binding arbitration of disputes involving

police and firefighters. Under binding arbitration the award must be accepted by both parties and implemented by the employer. While there has been some litigation over the issue of whether binding arbitration is an illegal delegation of power, the courts have so far ruled that it is not.[5]

A new wrinkle under binding arbitration is the "final offer" or "final selector" technique. Under this scheme arbitrators ask the parties to each put forward settlement terms which in their judgment would be fair and equitable. He then selects only one proposal which serves as the actual settlement. There has not been enough experience under this procedure to allow for any judgment whether this is a superior mechanism for resolving disputes. The hope is that it will encourage good faith bargaining. The outcome is very unpredictable, and the view is that the high degree of unpredictability might well deter the parties from going to impasse in the first place. The

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[5] A Michigan court ordered a public employer to implement provisions for binding grievance arbitration contained in an impasse arbitration award under the state's police-firemen's compulsory arbitration act. The court, in AFSCME Local 1518 v. St. Clair County Board of Commissioners; State of Michigan, Court of Appeals Division 2, Nos. 11923-4, released February 11, 1973 (GERR No. 498, B-8 to B-9) argued that the binding grievance arbitration provision was "within the spirit and intendment of the act to provide a mandatory means of settling disputes between the parties." A Pennsylvania Court, in Cheltenham Township v. Cheltenham Police Department; Commonwealth Court of Pennsylvania, No. 5 Transfer Docket 1972, March 15, 1973, held that an impasse arbitration panel may render awards pursuant to Act III provided the awards' provisions are "within the ambit" of terms and conditions of employment. Issues which are not proper matters of collective bargaining under Act III, may not be included in impasse arbitration awards.

concern has always been that traditional interest arbitration discourages the parties from engaging in meaningful bargaining, the parties preferring rather to have the arbitrator provide the benefits and secure the concessions that could not be obtained during bargaining.

The options before state legislatures as to which impasse breaking device ought to be mandated then, are as follows: 1) the current arrangement which provides for mediation and factfinding and allows for the possibility of occasional illegal strikes; 2) granting a limited right to strike; 3) providing for some form of binding arbitration.

Probably most legislatures would find the strike option untenable, while most teacher groups see the first option as both unworkable and unfair. Arbitration then might become the only option both parties can live with, mischievous as that technique can be to the formulation of rational manpower policy, and as troublesome as it certainly is to our democratic decision making apparatus.

Yet some mechanism must be developed that will give teachers confidence that they have been given a fair shake. Collective bargaining seems not so much as a consequence of the feeling that teachers were treated unfairly as it is a cause of that feeling. It has engendered very high expectations, perhaps many of them unrealistic, but real expectations nonetheless. If the right to exercise their considerable bargaining muscle is denied, then a greater right must be provided teachers to allow them to exercise their considerable power of persuasion. Typically, neutrals are more susceptible to persuasion than are advocates.

On a related matter, and for what it is worth, there appears to be less inclination on the part of private sector unions to use the

strike as an impasse breaking device. The most dramatic evidence of this development can be found in the recent agreement reached by the United Steel Workers and the ten largest basic steel companies. Companies and union have agreed that during the 1974 negotiation over a new three-year contract there will be no strike or lockout. Instead, all outstanding issues shall be submitted to a panel of arbitrators which will render a binding award.[6]

Of course, the steel industry has unique problems; there is nothing in public education comparable to foreign imports and the effects of stockpiling. Yet there is this in common: the strike is a wasteful and disruptive method of dealing with disputes. And since bargaining tends to engender disputes as often as it settles them, some procedure must be found to deal with disputes so that the aftermath will contain as little unpleasantness and hard feelings as possible.

In the preceding discussion there has been no attempt to make clear distinctions between impasse resolution devices appropriate for state-wide negotiations and those appropriate for local supplemental bargaining. Beyond the complications that come about because of mere size and diversity, there is probably little difference between the potential effectiveness of one technique over the other, whether it is used in a district-wide or a state-wide unit.

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[6] For an excellent summary of the steel agreement see I. W. Abel, "Steel: Experiment in Bargaining," The American Federationist, (Vol. 80, No. 7) July, 1973, pp. 1-7.

PROBLEMS AND IMPLICATIONS

Assuming that all representation, scope, and impasse resolution questions can be worked out to the satisfaction of both state officials and teacher organizations, problems still remain with a state-wide bargaining system. There are, moreover, implications to this system that advocates of equal educational opportunity and other aspects of school reform may not have fully considered. We turn now to a consideration of three of these problems-implications: securing equal educational treatment for students; providing a more rational educational manpower policy; meshing existing compensation and benefit practices.

SECURING EQUAL EDUCATIONAL TREATMENT FOR STUDENTS

One of the primary motivations behind state assumption of school costs is the belief that it will lead to a more even distribution of teaching talent. While there is some question about the impact schools actually have on educational achievement, there seems to be little dispute concerning the role of the teacher in enhancing achievement, restrictive as that opportunity might be. There are qualitative differences between teachers, regardless of how those differences might be measured, and there is a widely held view that the present system of school finance is at least partially responsible for the fact that the most qualified teachers tend to be concentrated in the most affluent school districts. This would seem to be the case if quality is measured by the conventional standards of experience, degrees, certification, etc. We shall have more to say about those standards later on, but for the moment we shall assume they serve as a proxy for quality. Chart 1 illustrates, in rather dramatic fashion, the relationship between district wealth and salient teacher characteristics in one state.

Chart 1

New York State School Districts Outside of New York City[7]

Property Value Per Pupil, 1971-72

Teacher Characteristics	Less Than 10,000	10,000-19,999	20,000-29,999	30,000-49,999	Greater Than 50,000
Percent of Teachers With Less Than BA Degree	6.2	3.5	2.3	2.1	2.1
Percent of Teachers With MA Degree or More	23.3	29.5	35.2	38.9	51.8
Percent of Teachers With 0-3 Years Total Experience	25.5	25.8	26.0	25.4	18.4
Percent of Teachers With 4-5 Years Total Experience	12.9	12.6	13.5	13.3	11.4
Percent of Teachers With Greater Than Five Years Total Experience	59.5	59.2	57.5	58.2	68.1

Chart 1

(continued)

Teacher Characteristics	Less Than 10,000	10,000-19,000	20,000-29,999	30,000-49,999	Greater Than 50,000
Percent of Teachers Not Certified	10.8	6.8	6.9	6.0	4.5
Percent of Teachers Prov. Certified	35.6	35.7	34.8	33.0	23.5
Percent of Teachers Perm. Certified	51.0	55.0	55.6	57.6	69.7
Number of Teachers Per Hundred Students	5.29	4.99	5.08	5.11	5.86
Percent of Nonclassroom Staff Per Hundred Students	.88	.85	.90	1.02	1.28
Average Salary	$9,410	$10,107	$10,724	$11,133	$12,001

It was circumstances such as these, circumstances that can probably be duplicated in all of our states, with the exception of Hawaii, that helped bring about Rodriguez, Seranno, and a dozen or so other Fourteenth Amendment cases. One of the early advocates of full state funding, Commissioner James E. Allen of New York State, saw state assumption as a necessary first step in bringing about a leveling of teaching talent:

> If the state were the only source of money, the bargaining would take place at the state level. This would eliminate the possibility of maneuvering by school boards to hold salaries at a given level as well as by teachers to use a higher level of salary in one district as a kind of whip-saw to effect increases in others. There would be each year a greater likelihood of a reasonable and fair settlement of the demands of teachers. Present developments are in the direction of the states taking a larger share of responsibility. It could be argued, therefore, that the drastic step of relieving the local school board of any responsibility for setting the level of teachers salaries would simply be a hastening of the inevitable.

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[7] Information supplied by New York State Education Department. I am grateful to Professor Lewis Perl for assisting me in putting the raw data into the above form.

> Fixing salaries on a state-wide basis would provide an additional incentive to teachers to remain in the cities or in the rural areas rather than to migrate to the wealthier suburban community for the higher salaries paid there. Inasmuch as the suburbs have other incentives to offer, this would not be expected to be a serious deterrent to the quality of education there. It could be expected to increase the quality in rural areas and in cities. The movement of teachers now in New York State is from rural areas to upstate metropolitan areas and from both rural areas and upstate metropolitan areas to the New York City metropolitan area. (emphasis added)[8]

To some, Commissioner Allen's solution may sound reminiscent of Will Rogers' observation about the "Okie" migration to California in the 1930s--it improved the average IQ in both states by several points. It teachers were economic men, if they were sufficiently mobile, and the jobs were available, then one could anticipate that over a relatively short period of time full state assumption and a state-wide collective bargaining agreement would bring about near equilibrium in teacher talent.

But the point must be made that not only do teachers fail to pass muster as economic men, most are not men at all. Indeed, 65.7 percent of all teachers are women, according to the most recent National Education Association estimate, and that figure has remained relatively constant for the last decade.[9]

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[8] James E. Allen, Jr., "Educational Priorities and the Handicap of Local Finance" (Albany: State Education Department, 1968), p. 8.

[9] The Status of the American Public School Teacher, 1970-71, Research Report 1972-R3, Research Division, National Education Association, 1972, p. 5.

One hesitates to make sex distinctions these days, particularly those distinctions that apply to occupational behavior. Yet there is a considerable amount of evidence suggesting that women teachers may be marching to a different drummer than do men teachers. Certainly there is enough evidence to question what now appears to be a widely held assumption that the equalizing of economic benefits will lead to an even distribution of teaching talent.

It has already been pointed out that more than 65 percent of female teachers are married and living with their husbands (42 percent of all teachers). What this means in regard to occupational behavior is that a substantial portion of public school teachers are not particularly mobile (unless they live within commuting distance of another school district or are willing to live separately from their husbands). Thus state-wide equality in pay would probably not serve as a very effective inducement for wooing such teachers into areas where their talents are needed, even if teaching jobs were available.

Neither do the remaining 35 percent of female teachers appear to respond to traditional economic market incentives. Geographic location, size of the community, the social climate of the school, or area recreational facilities appear to be more important reasons for selecting a particular district for the first job or for relocation than the salary offered.[10] Forty percent of the male teachers who moved to another

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[10]"Teacher Recruitment and Retention," Illinois Education, Vol. 57 (January, 1969), p. 192.

school system in 1968 said a more attractive salary offer was the most important inducement, but only 12 percent of females taking positions in other districts mentioned salaries as the primary reason for changing jobs.[11]

To be sure, equalization of salary arrangements through a state-wide teacher contract will result in some additional mobility and perhaps cause teaching talent to be distributed somewhat more evenly. But what little evidence we have on the effect of economic incentives on recruitment and mobility suggests that the consequences of uniform state-wide salary will be slight. We shall have more to say later on the costs of a state-wide bargain in terms of efficiency. It is sufficient to point out here that the educational benefits derived from such an arrangement could be easily outweighed by the other social costs engendered.

Even if we were to overcome the substantial salary differences between school districts and regions there is a real question whether we would thereby go very far toward equalizing educational opportunity. At least so far as we are concerned about outcomes. It has recently been questioned whether the schools can play more than a limited role in compensating for differences in students' socio-economic background. After an exhaustive analysis of a number of educational production function studies Christopher Jenks has concluded the following about our endeavors so far in coping with cognitive inequality.

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[11] "Teacher Mobility and Loss," NEA Research Bulletin, Vol 46, (December, 1968), pp. 118-126.

1) Equalizing the quality (per pupil costs, teachers' salaries, student-teacher ratio, etc.) of elementary schools would reduce cognitive inequality by three percent or less.

2) Equalizing the quality of high schools would reduce cognitive inequality by one percent or less.

3) Additional school expenditures are unlikely to increase achievement and redistributing resources will not reduce test score inequality.

If cognitive equality is our over-riding social goal, Jenks suggests, one hopes with tongue in cheek, that we might achieve that goal by not only providing additional benefits to the disadvantaged but actually penalizing the advantaged by providing 1 or 2 years schooling to the very bright, 6 years to children somewhat above average, 12 years to those a bit below average, and 18 or more years to slow learners.[12] Clearly, not even the staunchest of egalitarians would recommend such a drastic remedy.

The specific relationship between teachers' salaries and student cognitive development, using reading scores as a proxy for all such development, is analyzed in some detail in Appendix A of this report. I would only point out here that there seems to be little evidence, once students' socio-economic background has been controlled for, that scores of students now located in districts which pay relatively low salaries would be significantly changed if teachers' salaries

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[12] Christopher Jenks, et al., Inequality: A Reassessment of the Effect of Family Schooling in America (New York: Basic Books, 1972), p. 109.

were increased to or above the state average. One might make a case for equalizing salary scales on the grounds that this would be a more equitable arrangement for teachers, but it is questionable whether salary equalization would have much impact on providing equal educational opportunity. Nor do we know for certain whether a substantial increase in salaries would result in significant increases in student achievement. Conceivably higher salaries would bring a different calibre person into the teacher labor market. The issue, however, is not so much of more money being allocated to salaries as it is a more even distribution of funds presently available. On the basis of what we know, it is doubtful that public policy ought to be directed toward this form of egalitarianism.

In sum: standardizing and equalizing teachers' salaries will probably not induce a substantial migration of highly qualified teachers to the areas of greatest need; there is no significant measurable relationship between teachers' salaries and student achivement when we control for family background; thus even if a uniform salary system did induce a certain amount of mobility and a leveling of talent (as conventionally measured), there is little evidence to support the contention that student achievement levels would be significantly affected.

Providing A More Rational Manpower Policy

One of the persistent problems in labor relations has been to bring the provisions of collective agreements into conformity with an effective and efficient manpower policy. Within the last decade or so

a number of so-called educational production function studies have provided some valuable clues as to what a manpower policy ought to look like if we are really concerned about spending our scarce resources in the most productive fashion possible.[13] The most important inference that can be drawn from these studies is that the present "lockstep" system of teacher compensation (salaries based solely on experience and graduate training) does not satisfy the basic requirements of either manpower or personnel policies.

In summary form, the production function studies suggest the following:

1) In the first three elementary grades neither teacher experience or degree status has any significant effect on student achievement. The pupil-teacher ratio does.

2) In grades three through six and at the secondary level class size is of less importance and degree status of more importance in terms of student achievement. Experience still has no significant effect.

3) Student achievement in mathematics and science at the secondary level would be enhanced if premium pay were granted to qualified math and science teachers, who are in short supply.

4) The most important teacher characteristic related to

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[13] For a summary of these findings see the forthcoming monograph by John Heim and Lewis Perl, Educational Production Study Findings and Their Implications for Educational Manpower Policy, Institute of Public Employment, Cornell University.

student achievement, particularly for students at the upper elementary and secondary level, appears to be verbal ability. It is not known, however, whether teacher verbal ability is merely a proxy for other teacher characteristics, tenacity, "demandingness," that may also be conducive to high student achievement.

A small handful of school districts are presently experimenting with flexible pay schemes (about 40 in New York State alone) which in some small part are reflective of the tentative findings mentioned above. The most prominent features of these experiments are the questions raised about the conventional wisdom concerning the educational advantage of paying indiscriminately for years' teaching experience and post baccalaureate training. But clearly much more experimentation is needed before a persuasive case can be made for abandoning the present system.

With state-wide bargaining, however, it is doubtful if such experimentation could ever take place. Though there may be different salary scales for different regions, a state-wide agreement would have to be a uniform agreement as far as the method of compensation is concerned. It would be unsettling for both union and management representatives to have pockets of experimentation challenging the very assumption of the present compensation system going on in the context of a master agreement reflecting its total acceptance. Experimental districts would thus be swallowed up by the imperatives of egalitarianism and majoritarianism, the two essential ingredients of almost every

collective bargaining arrangement. State-wide bargaining, while the friend of convenience, may well become the enemy of diversity and experimentation.

Meshing Existing Compensation And Benefit Practices

With the exception of Hawaii, there is considerable diversity between school districts in teachers' salaries and benefits. As already pointed out on pages 22 and 23 of this report, there is in New York State a difference of over $2,500 in average salary between districts with less than $10,000 in per-pupil wealth and districts with more than $50,000 in per-pupil wealth. There is also a substantial difference between regions. Again using New York State data, shown in Chart 2, the range in average salary between the lowest paying region and the highest paying region is over $3,500.

Chart 2

75th Percentile Salaries of Classroom Teachers
By Geographic Region, 1970-71[14]

Region	75th Percentile Salary	
	Absolute Value	Percentage Difference from Total State Value
Total State	$ 13,020	0
Binghamton	11,195	-14.02
Buffalo	12,060	- 7.37
Capital District	11,550	-11.29
Elmira	11,547	-11.31
Long Island	14,691	+12.83
Mid-Hudson	11,985	- 7.95
Mohawk Valley	11,150	-14.36
New York City	14,250	+ 9.45
Northern	11,400	-12.44

Chart 2

(continued)

Region	75th Percentile Salary	
	Absolute Value	Percentage Difference from Total State Value
Rochester	12,320	- 5.38
Rockland-Westchester	14.536	+11.64
Syracuse	11,302	-13.20

Some of these differences can, of course, be attributed to teacher experience (districts with a high percentage of experienced teachers will have a higher average salary than those with a small percentage of experienced teachers, even if the salary schedule is somewhat lower), but a comparison of the salary schedules of districts in the various regions demonstrates that most of the differences can be attributed to the schedule. Nor is it the case that lower salaries are compensated for by expensive fringe benefits. Indeed, there appears to be a direct correlation between salaries and fringe costs. The higher the salary the greater likelihood that there will also be provided, for example, fully funded health, life, and dental insurance.

How does one mesh these disparate circumstances into a single compensation scheme, providing for uniform treatment not only within regions but between them as well? Obviously it could not be done all at once by bringing the lowest to the highest with one master stroke. The cost would be horrendous. And even if the cost could somehow be absorbed, the benefits achieved thereby would be minimal.

[14] Report of the New York State Commission on the Quality, Cost and Financing of Elementary and Secondary Education, Volume III, 1972, p. 13B.13.

The more likely approach would be for the agreement to provide for a gradual movement toward parity. For example, a seven percent increase for teachers in districts at the bottom, plus one or two additional benefits, and two percent for those at the top, with no additional benefits. Over time, perhaps after three or four three-year agreements had been negotiated, we would have equality.

The time could be shortened if the state bargaining reflected regional differences, differences based on cost of living, difficulty of recruitment, turnover, etc. But regional lines are extraordinarily difficult to draw, no matter what set of criteria is used. To illustrate, neither teachers or school boards in those districts that were designated as the "low pay" regions would be content with this arrangement. The teachers would object for obvious reasons. School boards, which may have thought salaries too high when a substantial portion of the costs of these salaries came from local tax revenues would no doubt sing a different tune if salary costs were shared by all taxpayers in the state. School board members, no less than most individuals, often see a positive correlation between teachers' salaries and teacher quality.

The major obstacle to meshing salary schedules and fringe benefits, however, would probably be the resistance coming from the more affluent districts. Teachers in such districts would certainly be reluctant to surrender the advantage they presently enjoy--taxpayers willing and able to provide substantial salaries and benefits--so that their less fortunate brothers and sisters can play catch up. To do so would

demonstrate degrees of compassion, altruism, and solidarity seldom witnessed in the western world.

Likewise, it is doubtful if school boards in the affluent areas would look kindly toward a state-wide uniform salary arrangement. The tax burden imposed to support the schools in these districts is relatively low as a percentage of family income, and the advantages of maintaining a salary differential are seen to be great. Thus one would expect that school boards as well as teacher organizations would resist any attempts to rob them of the competitive advantage. It is also worth noting that citizens in affluent communities generally have easier access to legislators and state officials to get their points across than do average citizens. This political acumen, backed by a strong and genuine feeling that mischief is being proposed for our long tradition of local control, may be the strongest obstacle of all.

This may be the reason why various proposals for state funding and state-wide bargaining have not received widespread popular support. Teacher groups, in the main, see the measure as divisive because it may benefit the few at the expense of the many. Certainly it would deprive large numbers of teachers from exploiting advantageous economic situations in many districts. On the other hand, those citizens who moved to the suburbs in order to give their children educational advantages would certainly not be happy to discover that the advantages being sought were to be denied them for the sake of a bold social experiment. In short, programs designed to assist one social group at a cost to other groups do not have a history of success in America.

CONCLUSION

This paper has been rather severe in its criticism of the proposal to achieve greater equality of opportunity by making the state the only, or almost only, source of school funds. It has been equally severe in its criticism of the proposal to establish a state-wide bargaining structure in order to help achieve this end. This is not to argue that gross inequalities in opportunity is not a grave social problem. The degree to which a child succeeds, or has the opportunity to enjoy the good things in life certainly ought not to be determined by personal wealth, community wealth, or by accident of geographical origin. The problem is whether the remedies proposed by advocates of full state funding and state-wide bargaining would actually provide for anything like equality of educational opportunity. It was pointed out earlier that there is a very weak correlation between teachers' salaries and student achievement, when other variables have been accounted for; thus there would appear to be little value in equalizing salaries. It was also suggested that state-wide salary arrangements would do little to induce the volume of teacher migration needed to bring about greater equalization of teaching talent, however that talent might be measured.

To be sure, there are several benefits which would come about through a state-wide bargain: the effect of the whipsaw tactic, which tends to drive salaries beyond the market price, would be minimized; the costly duplication of effort and waste in precious man-hours taken up in negotiations would be eliminated; there would probably be a reduction at the local level in board, administration and teacher tensions, tensions which probably have an adverse effect on learning.

But these benefits would probably come at a very high cost. Certainly a considerable amount of local autonomy and direct citizen participation would be sacrificed for the sake of uniformity of treatment. But perhaps most importantly, experimentation in manpower policies would virtually come to an end. There would be little opportunity or reason for local school districts and teacher organizations to try out new compensation or staffing schemes, since these arrangements would be prescribed by the state-wide master agreement.

This curtailment of local innovation may prove to be particularly troublesome and ironic. The motive force behind state funding is the hope that by making school resources independent of the ability of local communities to generate these resources equal education opportunity will be secured for those students suffering from economic and cultural disadvantages. In short, educational resources, including talented teachers, would be redistributed in order to help those less well situated, usually the poor. It has not been argued by advocates of state funding that children in affluent suburbs, or even children coming from somewhat modest circumstances would benefit from this new arrangement. The troublesome and ironic aspect of the proposition, if the data presented earlier has any relevance at all, is that mere redistribution of resources will have little effect on reducing inequality. What appears to be needed in schools with low achievement records is a new approach to staffing and different incentives for teachers, in sum, a system of compensation flexible enough to mesh particular teacher characteristics with given student needs. This meshing is less important for students in middle class schools since, as Jenks and others have reported, for most of them the schools have a limited impact on future success. It probably makes little

difference to a child of white, college educated parents what compensation system his teacher works under. But for a child who must depend heavily on the school for his intellectual, social, and cultural development, teacher compensation and staffing schemes may be critical. Thus two $6,000 teachers in early elementary classrooms may, for example, be a much better investment for this group than a single teacher costing $13,000. The point cannot be made too strongly here, however, that such an arrangement could not be tolerated by spokesmen for a state-wide teacher organization. Nor would spokesmen for the state have any strong incentive for pushing such a proposal.

To be sure, there is a correlation between student expenditures and student achievement. But it has yet to be demonstrated that there is a significant casual relationship between the two. Supporters of state funding and state-wide bargaining assume that there is and would thus impose similar, if not identical, conditions on the well-to-do and the less fortunate in the hopes that through this simple strategem will emerge not only equality of treatment but equality of achievement as well.

The difficulty with this proposition is that equality of treatment has become confused with sameness of treatment. It does not recognize that for those children living in the so-called deprived school districts different demands must be made upon the schools. The evidence is rather clear that under present arrangements, salary schemes and staffing structures being an important aspect of these arrangements, the schools do little to compensate for whatever social or economic disadvantages children suffer. If we are ever to bring about a situation in which a child's opportunity to succeed is largely independent of his cultural background these arrangements must be changed

so that the school can play a much larger compensating role. Paying more money for doing the same old business at the same old stand seems not the way to go about it.

What is needed is a much greater flexibility in both pay and staffing arrangements. This could mean virtual saturation of professional help in some subject areas and for some grade levels and less professional attention at other times. It might mean greater use of educational technology with the consequent employment of numbers of "technical" as against "educational" experts. Surely it would mean that some teaching would be done by individuals with lesser "qualifications" as conventionally measured, while other teachers would, because of their unique functions, be highly trained and highly paid.

As suggested earlier, it would be extremely difficult, perhaps impossible, to mesh this concept of flexibility with the requirements of collective bargaining. In bargaining both sides tend to favor uniformity of treatment, implemented by the applications of objective criteria.

It does not seem likely, then, that state-wide bargaining will result in the kind of equality those who advocate it desire. Indeed, it may frustrate the endeavors of those who must rely heavily on the schools to compensate for the bad effects of their social environment from ever realizing their potential.

APPENDIX A

STATISTICAL ANALYSIS OF EDUCATIONAL EXPENDITURES

Table 1

Range of Teachers' Salary, Household Income, Per Pupil Expenditure, and Reading Score Attainment in New York State

Region	1971-72 Teachers' Salary in 50th Percentile By Region	1971 Net Average Household Income By Region	1971 Percent Scoring Above Statewide Average Level in 6th grade Reading Scores By Region	1970 Per Pupil Instructional Expenditure By Region
	$	$		$
BINGHAMTON REGION	10,077	11,631	21.5	640
BUFFALO REGION	10,560	11,816	17.5	658
CAPITAL DISTRICT	10,307	14,864	20.5	681
ELMIRA REGION	10,274	10,776	19.6	644
LONG-ISLAND REGION	12,963	17,273	23.1	868
MID-HUDSON REGION	10,766	12,015	20.1	706
MOHAWK VALLEY REGION	10,151	10,902	17.6	640
NORTHERN REGION	10,421	10,018	15.7	641
ROCHESTER REGION	10,822	13,470	20.5	714
ROCKLAND-WESTCHESTER REGION	12,974	17,866	24.9	918
SYRACUSE REGION	9,869	12,030	17.9	639
NEW YORK CITY REGION	13,334	12,184	10.9	724
NEW YORK STATE	11,830	13,309	17.7 (20.7 Excluding NYC results)	736

Analysis of data contained in Table 1 shows that a range of 14 percentage points exists between the highest and lowest scoring region in the proportion of 6th grade students attaining scores above the statewide mean in standardized reading tests. A glance at this table also shows that the highest scoring region (Rockland-Westchester) also had the highest per pupil instructional expenditures ($918) the highest net average household income by region ($17,866 in 1971), and one of the highest (though not the highest) median teacher salaries.

In order to determine and test the strength of association between these variables a Pearson correlation analysis was computed. Table 2 shows these results.

Table 2

Zero Order Partials

Household Income and Reading Score (Significance .011)	r = 0.6483
Teachers' Salary and Reading Score (Significance .473)	r = 0.0217
Per Pupil Expenditure and Reading Score (Significance .078)	r = -0.4366

The Pearson correlations show that a strong linear relationship exists between student performance and household income, a weak correlation exists between student performance and median teachers' salary, and that a negative relationship exists between performance and per pupil expenditure! As a way of explaining this last result, the numbers were recomputed, but New York City data were excluded. Table 3 details these results.

Table 3

Zero Order Partials

New York City Data Excluded

Household Income and Reading Score (Significance .001)	r = 0.8445
Teachers' Salary and Reading Score (Significance .003)	r = 0.7576
Per Pupil Expenditure and Reading Score (Significance .236)	r = -0.2429

Excluding New York City from the Pearson correlation analysis had the effect of strengthening household income by almost 2 percentage points, and reducing the negative correlation between student performance and expenditure by almost 2 percentage points. However, teachers' salary as a variable went from a correlation of +0.0218 to one of +0.7576.

Before we determine that a strong relationship exists either with income or teachers' salary on student performance, it is vital to control for spurious correlations and intervening variables. That is, household income may influence per pupil expenditure and teachers' salary figures and, of course, also influence student performance. Thus, it is necessary to control for these effects. Table 4 gives the partial correlation coefficients, computing for first and second order partials.

Table 4

First and Second Order Partials

New York City Data Excluded

Household Income and Reading Score (Significance .040)	r = 0.5779 controlling for teachers' salary
Teachers' Salary and Reading Score (Significance .388)	r = 0.1032 controlling for income
Per Pupil Expenditure and Reading Score (Significance .302)	r = -0.1875 controlling for teachers' salary
Per Pupil Expenditure and Reading Score (Significance .176)	r = -0.3301 controlling for income
Household Income and Reading Score (Significance .001)	r = 0.8535 controlling for per pupil expenditure
Household Income and Reading Score (Significance .039)	r = 0.6161 controlling for teachers' salary and per pupil expenditure
Teachers' Salary and Reading Score (Significance .454)	r = 0.0453 controlling for income and per pupil expenditure

Thus, the first and second order partial correlations confirm the hypothesis that the initial high linear relationship between teachers' salary and reading score performance is due to an intervening variable, namely income. Once income and per pupil expenditure are held constant, the correlation between teachers' salary and reading score performance

becomes weak +0.0453. Only the correlation between household income and performance continues to hold. Therefore it is safe to assume that of the independent variables listed here (teachers' salary, household income, and per pupil expenditure) only household income is likely to have a strong positive relationship on the scholastic performance of students.

In addition to the correlation we also wanted to ascertain the best predictor among the independent variables. Thus, a multiple regression analysis was computed. The following table gives the standardized beta values of several independent variables and the dependent variable (reading score).

Table 5

Multiple Regression Analysis (Stepwise)

New York City Data Excluded

	Beta
Reading Score and Household Income	.74961
Reading Score and Teachers' Salary	.10981
Reading Score and Per Pupil Expenditure	-.24261

The data show that the variable teachers' salary is not a significant predictor of student performance. The data also suggest that family income is likely to be a more significant predictor of student performance. However, it must be kept in mind that the low correlation between teachers' salary and pupil performance, and the inverse relationship between pupil expenditure and pupil performance may be due to the influence of urban

school districts where student performance continues to lag despite higher per pupil instructional expenditures and improved teachers' salaries.

Explanation of Regions

Binghamton Region inclues the counties of:

Broome, Chenango, Delaware, and Otsego

Buffalo Region includes the counties of:

Cattaraugus, Chautauqua, Erie, and Niagara

Capital District includes the counties of:

Albany, Rensselaer, Saratoga, Schenectady, Schoharie, Warren, and Washington

Elmira Region includes the counties of:

Allegany, Chemung, Schuyler, Steuben, Tioga, and Tompkins

Long-Island Region includes the counties of:

Nassau and Suffolk

Mid-Hudson Region includes the counties of:

Columbia, Dutchess, Greene, Orange, Putnam, Sullivan, and Ulster

Mohawk Valley Region includes the counties of:

Fulton, Hamilton, Herkimer, Mongomery, and Oneida

Northern Region includes the counties of:

Clinton, Essex, Franklin, Jefferson, Lewis, and St. Lawrence

Rochester Region includes the counties of:

Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates

Rockland-Westchester Region includes the counties of:

Rockland and Westchester

Syracuse Region includes the counties of:

Cayuga, Cortland, Madison, Onondaga, and Oswego

New York City Region includes the five boroughs or counties of New York City.

APPENDIX B

COLLECTIVE BARGAINING RIGHTS OF SUPERVISORY EMPLOYEES

Coverage	
National Labor Relations Act (NLRA)	Supervisor is defined as "any individual having authority, in the interest of the employer, to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward or discipline other employees, or responsibility to direct them, or to adjust their grievances, or effectively to recommend such action, if in connection with the foregoing the exercise of such authority is not of a merely routine or clerical nature, but requires the use of independent judgement." Employers are not required to recognize or negotiate with supervisory personnel.
Railway Labor Act (RLA)	"Subordinate officials," although not defined, are included under the term "employe " and are under the protection of the Act. In industries covered by the RLA unionization of foremen and personnel well above first line supervisors is widespread.
Executive Order 11491 (E.O. 11491)	Supervisors are defined along National Labor Relations Act's terms. Agency management is defined in terms of involvement in labor relations policy. Managers and supervisors are excluded from representation unless they are "represented by labor organizations which historically or traditionally represent the management officials or supervisors in private industry and which hold exclusive recognition for such units of such officials or supervisors in any such agency on the date of this order." Agencies are required to consult with supervisors or groups of supervisors. Recent Federal Labor Relations Council rulings require literal application of definitional criteria. Employees who meet <u>any</u> of the indicia are excluded; the only qualifier being the use of independent judgement.

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
SKA	Only elected and appointed officials are excluded from representation.	Supervisors are excluded. Principals and other lesser administrators are included with authorization for separate representation.			
IFORNIA	Certain managerial personnel may be excluded from representing labor organizations composed of other employees.	Supervisors are included up to top governor appointees and elected officials.			Firemen are included up to governor appointees and elected officials.
NECTICUT		Separate representation for intermediate supervisors i.e. principals, superintendents, assistant superintendents and other policy or personnel professionals are excluded.		Excluded. Supervisors are characterized by at least 2 of following: A) scheduling, overseeing, assigning and reviewing work of subordinates B) performing duties different than subordinates C) exercising judgement in grievance personnel or contract administration	

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
ECTICUT ntinued)				D) establishing and/ or implementing performance standards Broader coverage (inclusion) for police and fire. No separate representation.	
WARE	Included up to elected or governor-appointed	Supervisory and staff personnel excluded-No definition.			
IDA					Excluded NLRA Definition.
GIA					Included if subject to fire-fighting duties.
II	Considerations used in determining supervisory status include class titles and nature of the work performed-i.e., is it separate from work of subordinates. Supervisory employees may be included in a broad unit by mutual agreement or may				

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
AII (ntinued)	choose separate rep. Top-level managers are excluded.				
ANA		"Supervisor" is defined in terms similar to National Labor Relations Act with additional language stating that "supervisors shall include, but not be limited to, superintendents, assistant superintendents, business managers and supervisors, or directors with school cooperation-wide responsibilities, principals, and vice principals or department heads who have responsibility for evaluating teachers." Supervisors are not covered by the law.			

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
		Managerial exclusion clauses may be negotiated.			Fire: Included.
S	A supervisor may become "a member of an employee organization," but the employer is not required to recognize supervisory employees. NLRA definition is applied.	Separate representation. Joint representation if all administrators are included.			
	May be excluded or given separate representation if found by the Executive Director to meet criteria or if listed among exceptions to coverage i.e., elected, appointed, or confidential. Criteria listed are much the same as Conn.: overseeing subordinates; sep. duties, judgment used in grievance handling, personnel, and contract admin. etc.	Separate representation except for superintendents and assistant superintendents who are excluded.			

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
SACHUSETTS	Excluded if head of department, board, commission, or other agency or if participation would create conflict of interest.			Included up to elected officials, board and commission members, and executive officers.	
HIGAN	Broad inclusion: supervisors up to policy making level have either joint or separate representation rights.				Fire: Included up to head executive. Joint representation.
NESOTA	Supervisor defined in NLRA terms. Very restricted representation rights. Are not authorized to be in an appropriate unit, but may form separate association or separate affiliate of broad unit. These separate units may not be recognized and may only "communicate" with employer on "appropriate matters."				

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
ANA	Supervisory and managerial employees seemingly excluded.	Only principals may be included as part of unit or as a separate unit.			Nurses: No apparent exclusion.
ASKA	Fire and police: chiefs and their immediate subordinates are excluded. Very broad inclusionary language for other sectors.	All certificated employees included.			
DA				Schools: superintendents and their assistants or associates are excluded. Lower level supervisors given separate representation if 6 or more in district; may be included in teacher units in districts with less than 6 principals. Administrators: works directly with management policy; exercises discretion and judgment; assists an employee. Governmental administrators or supervisors are excluded from joint rep.	

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
HAMPSHIRE	Excluded if conflict of interest.				Police: Excluded from joint representation.
JERSEY	Elected officials, heads and deputy dept. heads, members of boards or commissions and managerial executives or superintendents of schools are excluded. Lesser supervisors are bound to separate representation under prior practice, agreement or special circumstance dictate otherwise. Higher ranking supervisors less than managerial executives, may be excluded from unit of lesser ranking supervisors if actual or potential conflict of interest.				
MEXICO		"Administrator" is defined in broad terms. No distinction between superintendents and principals. Separate units of administrators are appropriate.			

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YORK	Upon petition PERB may designate employees as managerial or confidential if they meet criteria if so designated they are excluded. Criteria: (i) formulate policy or (ii) are directly involved in preparation for and conduct of collective bargaining negotiations, personnel administration or contract administration where independent judgment is required; or are confidential employees. There is a predisposition to preserve existing representation rights.				
H DAKOTA	Administrators administer at least 50 percent of time and are expressly authorized to organize as separate units.				

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
AHOMA				Those falling under basic job duty definition of supervisory are excluded from nonsupervisory units, but may form separate units which cannot be recognized except for consultation. Fire and Police: Chiefs and 1st assistants are excluded from any unit.	
GON	No exclusionary language.	Administrators defined as supervisory. Principals, vice principal or director are excluded from teacher units, but may form separate units. School Personnel: "Administrator" given NLRA definition except independent judgment criteria are excluded from representation.			Nurses: Broad inclusionary language.

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
SYLVANIA	Supervisors given NLRA definition. Management level employee determines and/or directs policy. First level supervisor is lowest supervisory level. All except 1st level are excluded from joint rep., but may form separate units for "meet and discuss" purposes-not bargaining purposes. Litigation: first level supervisor may be part of "broad-based" unit when no conflict of interest exists.			Transit workers: executive and administrative officers (no definition) excluded.	Police and Fire: No exclusionary language.
E ISLAND	Implied inclusion, except for state police officers above lieutenant.	Superintendents, assistant superintendents, principals and assistant principals are excluded - no definition is given.		Administrative officials excluded. No definition. Board makes determination upon request.	

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
DE ISLAND ontinued)				Fire: all uniformed members included. Police: Included up through Chief of Police.	
TH DAKOTA	No exclusionary language.			Police and Fire: All ranks included.	
MONT	Management criteria given in lengthy list--plan, implement policy or programs, direct activities, or supervision of activities. Such employees are excluded from representation.	Superintendents and assistant superintendents are excluded by job title. Lesser administrators may affiliate with teachers as separate department or may organize separately. They may not fully integrate with teachers' unit.		Supervisors and confidential employees are excluded.	
HINGTON	Gives meet and confererights. Executive managers-supervisors defined and are excluded from units with lesser employees. Executive managers are totally excluded. Supervisors may have separate rep.	"Chief administrative officers of each local school district" is excluded.	Community college faculty, only chief administrative officer excluded. State Univ.: No exclusionary language.	Only executive heads and confidents excluded. No definitional criteria. Port Dist. Employees: managerial, professional, and administrative personnel and confidents excluded. No definition.	

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
NSIN	Supervisor defined as in NLRA. Management given executive and managerial function definition. Supervisors further defined as either professional or nonprofessional. Such employees are excluded from units with subordinates, but may, upon petition be in either a professional supervisors' unit or a nonprofessional supervisors' unit.			Supervisors given basic NLRA definition. They may have joint representation, but cannot participate in collective bargaining policy decisions nor grievance resolution. After Jan. 1, 1974 they are excluded from joint representation.	Fire and Police: definition of supervisor varies with city size. If 2 or more fire stations, supervisors are those ranking "above the highest ranking officer at each single station. At single station cities the chief and his 1st assistant are supervisors. Supervisors have representation rights, but may be required to organize as separate units. Fire: No exclusionary language.
ING					
RICT OF UMBIA	Management executive defined as policy maker and implementer. Supervisor defined in NLRA terms, and both, along with confidents, are excluded from representation.				

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
GIN ISLANDS	"Supervisors" defined in NLRA terms, and those meeting definition are excluded from representation rights. A savings clause similar to Executive Order 11491's allows "the renewal, continuation, or initial according of recognition for units of management officials or supervisors represented by labor organizations which exclusively, historically or traditionally represent management officials or supervisors in private industry or government." This clause in effect is more liberal than the Executive Order 11491				

STATE	STATE EMPLOYEES	TEACHERS (if separate)	HIGHER EDUCATION (if separate)	MUNICIPAL EMPLOYEES (if separate)	NURSE OR FIRE AND POLICE (if separate)
RGIN ISLANDS continued)	clause and seems to leave open an opportunity for government supervisor unions to organize supervisors in the Virgin Islands even though no prior organizations is in evidence. Supervisors are also accorded consultation rights.				